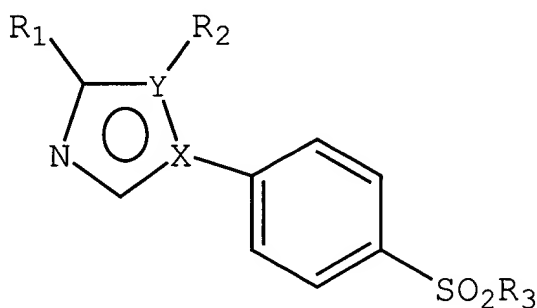


Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A compound of formula I:



I

wherein:

one of X or Y represents N and the other represents C;

R₁ represents hydrogen, methyl, halogen, cyano, nitro, -CHO, -COCH₃ or -COOR₄;

R₂ represents aryl ~~or heteroaryl~~ unsubstituted or substituted with one or more groups independently selected from halogen, C₁₋₈ alkyl, C₁₋₈ haloalkyl, R₄OC₀₋₈ alkyl, R₄SC₀₋₈ alkyl, cyano, nitro, -NR₄R₆, -NR₄SO₂R₅, -SOR₅, -SO₂R₅, -SO₂NR₄R₆, or -CONR₄R₆;

R₃ represents C₁₋₈ alkyl, C₁₋₈ haloalkyl or -NR₄R₆;

R₄ represents hydrogen, C₁₋₈ alkyl, or arylC₀₋₈ alkyl (where the aryl group can be unsubstituted or substituted with one or more groups selected from C₁₋₈ alkyl, halogen, C₁₋₈ haloalkyl, cyano, nitro, R₇OC₀₋₈ alkyl, R₇SC₀₋₈ alkyl, -NR₇R₈, -NR₇COR₅, -COR₇ or -COOR₇);

R₅ represents C₁₋₈ alkyl or C₁₋₈ haloalkyl;

R₆ represents hydrogen, C₁₋₈ alkyl, arylC₁₋₈ alkyl (where the aryl group can be unsubstituted or substituted with one or more groups selected from C₁₋₈ alkyl, halogen, C₁₋₈ haloalkyl, cyano, nitro, R₇OC₀₋₈ alkyl, R₇SC₀₋₈ alkyl, -NR₇R₈, -NR₇COR₅, -COR₇ or -COOR₇), -COR₈ or -COOR₈;

R₇ represents hydrogen, C₁₋₈ alkyl or benzyl;

R₈ represents C₁₋₈ alkyl or C₁₋₈ haloalkyl;

aryl in the above definitions represents phenyl or naphthyl; ~~and heteroaryl in the above definitions represents pyridine, pyrazine, pyrimidine or pyridazine, which can be optionally fused to a benzene ring,~~

or a salt, solvate or prodrug thereof.

2. (Original) A compound according to claim 1 wherein R₁ represents halogen.

3. (Original) A compound according to claim 2 wherein R₁ represents chloro.

4. (Currently Amended) A compound according to claim 1 wherein R₂ represents phenyl ~~or pyridine~~ unsubstituted or

substituted with one or more groups independently selected from halogen, C₁₋₈ alkyl, C₁₋₈ haloalkyl, R₄OC₀₋₈ alkyl, R₄SC₀₋₈ alkyl, cyano, nitro, -NR₄R₆, -NR₄SO₂R₅, -SOR₅, -SO₂R₅, -SO₂NR₄R₆, or -CONR₄R₆.

5. (Original) A compound according to claim 1 wherein R₃ represents methyl or -NH₂.

6. (Original) A compound according to claim 1 wherein X represents N.

7. (Original) A compound according to claim 5 wherein R₁ represents halogen.

8. (Original) A compound according to claim 5 wherein R₁ represents chloro.

9. (Original) A compound according to claim 7 or 8 wherein X represents N.

10. (Currently Amended) A compound according to claim 9 wherein R₂ represents phenyl ~~or pyridine~~ unsubstituted or substituted with one or more groups independently selected from halogen, C₁₋₈ alkyl, C₁₋₈ haloalkyl, R₄OC₀₋₈ alkyl, R₄SC₀₋₈ alkyl, cyano, nitro, -NR₄R₆, -NR₄SO₂R₅, -SOR₅, -SO₂R₅, -SO₂NR₄R₆, or -CONR₄R₆.

11. (Currently Amended) A compound according to claim 1 selected from:

5-(4-fluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;

5-(4-methylphenyl)-1-(4-methylsulfonylphenyl)imidazole;

5-(2,4-difluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;
1-(4-methylsulfonylphenyl)-5-phenylimidazole;
5-(3,4-dichlorophenyl)-1-(4-methylsulfonylphenyl)imidazole;
5-(4-methoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;
5-(3-fluoro-4-methoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;
5-(3-fluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;
5-(3-fluoro-4-methylphenyl)-1-(4-methylsulfonylphenyl)imidazole;
5-(2-fluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;
1-(4-methylsulfonylphenyl)-5-(4-trifluoromethoxyphenyl)imidazole;
~~5-(6-methyl-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~
5-(2-fluoro-4-methoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;
5-(3-chloro-4-methylphenyl)-1-(4-methylsulfonylphenyl)imidazole;
5-(3-methoxy-4-methylphenyl)-1-(4-methylsulfonylphenyl)imidazole;
5-(4-chlorophenyl)-1-(4-methylsulfonylphenyl)imidazole;
~~5-(6-chloro-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~
~~5-(2,6-dichloro-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~
~~5-(2-chloro-6-methoxy-3-pyridyl)-1-(4-~~
~~methylsulfonylphenyl)imidazole;~~
~~5-(5,6-dichloro-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~
1-(4-methylsulfonylphenyl)-5-(4-propoxyphenyl)imidazole;
5-(3,5-diethoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;
5-(4-ethoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;
1-(4-methylsulfonylphenyl)-5-(4-nitrophenyl)imidazole;
5-(4-methylsulfonylphenyl)-1-(4-methylsulfonylphenyl)imidazole;

5-(4-ethylsulfanylphenyl)-1-(4-methylsulfonylphenyl)imidazole;
5-(4-dimethylaminophenyl)-1-(4-methylsulfonylphenyl)imidazole;
1-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)imidazole;
5-(4-fluorophenyl)-4-methyl-1-(4-methylsulfonylphenyl)imidazole;
4-chloro-5-(4-fluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;
4-chloro-5-(4-methylphenyl)-1-(4-methylsulfonylphenyl)imidazole;
4-chloro-5-(2,4-difluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;
4-chloro-1-(4-methylsulfonylphenyl)-5-phenylimidazole;
4-chloro-5-(3,4-dichlorophenyl)-1-(4-methylsulfonylphenyl)imidazole;
4-chloro-5-(4-methoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;
4-chloro-5-(3-fluoro-4-methoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;
4-chloro-5-(3-fluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;
4-chloro-5-(3-fluoro-4-methylphenyl)-1-(4-methylsulfonylphenyl)imidazole;
4-chloro-5-(2-fluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;
4-chloro-1-(4-methylsulfonylphenyl)-5-(4-trifluoromethoxyphenyl)imidazole;
~~4-chloro-5-(6-methyl-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~
4-chloro-5-(2-fluoro-4-methoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;

4-chloro-5-(3-chloro-4-methylphenyl)-1-(4-methylsulfonylphenyl)imidazole;

4-chloro-5-(3-methoxy-4-methylphenyl)-1-(4-methylsulfonylphenyl)imidazole;

4-chloro-5-(4-chlorophenyl)-1-(4-methylsulfonylphenyl)imidazole;

~~4-chloro-5-(6-chloro-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~

~~4-chloro-5-(2,6-dichloro-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~

~~4-chloro-5-(2-chloro-6-methoxy-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~

~~4-chloro-5-(5,6-dichloro-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~

4-chloro-1-(4-methylsulfonylphenyl)-5-(4-propoxyphenyl)imidazole;

4-chloro-5-(3,5-diethoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;

4-chloro-5-(4-ethoxyphenyl)-1-(4-methylsulfonylphenyl)imidazole;

4-chloro-1-(4-methylsulfonylphenyl)-5-(4-nitrophenyl)imidazole;

4-chloro-5-(4-methylsulfonylphenyl)-1-(4-methylsulfonylphenyl)imidazole;

4-chloro-5-(4-ethylsulfonylphenyl)-1-(4-methylsulfonylphenyl)imidazole;

~~4-chloro-5-(6-ethoxy-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~

4-bromo-5-(4-fluorophenyl)-1-(4-methylsulfonylphenyl)imidazole;
1-(4-fluorophenyl)-2-methyl-5-(4-methylsulfonylphenyl)imidazole;
2-chloro-1-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)imidazole;
1-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)imidazol-2-
carboxaldehyde;
methyl 1-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)imidazol-2-
carboxylate;
2-bromo-1-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)imidazole;
1-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)imidazol-2-
carbonitrile;
2-chloro-5-(4-methylsulfonylphenyl)-1-phenylimidazole;
2-chloro-1-(4-methylphenyl)-5-(4-methylsulfonylphenyl)imidazole;
4-[4-chloro-5-(4-fluorophenyl)imidazol-1-yl]benzenesulfonamide;
4-(4-chloro-5-phenylimidazol-1-yl)benzenesulfonamide;
4-[4-chloro-5-(3,4-dichlorophenyl)imidazol-1-
yl]benzenesulfonamide;
4-[4-chloro-5-(4-methylphenyl)imidazol-1-yl]benzenesulfonamide;
4-[4-chloro-5-(4-ethoxyphenyl)imidazol-1-yl]benzenesulfonamide;
4-[4-chloro-5-(3-fluoro-4-methoxyphenyl)imidazol-1-
yl]benzenesulfonamide;
~~4-[4-chloro-5-(6-chloro-3-pyridyl)imidazol-1-
yl]benzenesulfonamide;~~
4-[5-(4-fluorophenyl)imidazol-1-yl]benzenesulfonamide;
5-(4-aminophenyl)-4-chloro-1-(4-methylsulfonylphenyl)imidazole;

~~5-(6-ethoxy-3-pyridyl)-1-(4-methylsulfonylphenyl)imidazole;~~

4-chloro-5-(4-dimethylaminophenyl)-1-(4-methylsulfonylphenyl)imidazole;

5-(3-chloro-4-dimethylaminophenyl)-1-(4-methylsulfonylphenyl)imidazole;

4-chloro-5-(3-chloro-4-dimethylaminophenyl)-1-(4-methylsulfonylphenyl)imidazole;

5-(4-acetylaminophenyl)-4-chloro-1-(4-methylsulfonylphenyl)imidazole;

5-(4-ethylsulfinylphenyl)-1-(4-methylsulfonylphenyl)imidazole;

5-(4-ethylsulfonylphenyl)-1-(4-methylsulfonylphenyl)imidazole;

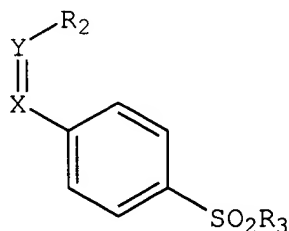
a salt thereof;

a solvate thereof; and

a prodrug thereof.

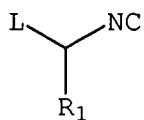
12. (Previously presented) A process for preparing a compound of formula I according to claim 1 which comprises:

(a) when in a compound of formula I R_1 represents hydrogen or methyl, reacting an imine of formula II



II

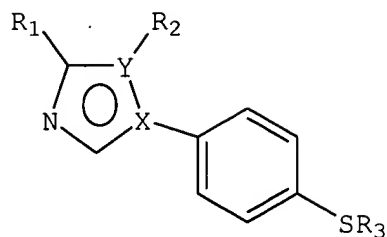
wherein X, Y, R₂ and R₃ are as defined in claim 1, with an isocyanide of formula III



III

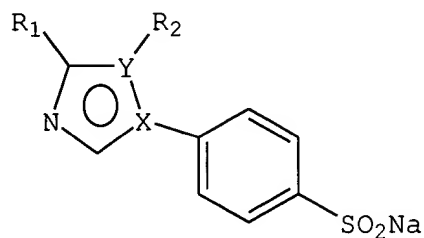
wherein R₁ represents hydrogen or methyl and L represents a leaving group; or

(b) when in a compound of formula I R₃ represents C₁₋₈ alkyl or C₁₋₈ haloalkyl, oxidizing a thioether of formula VIII,



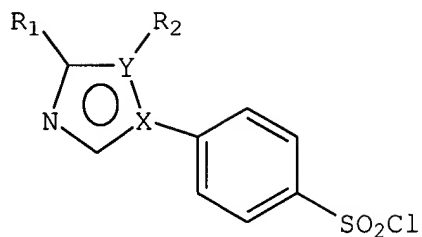
VIII

wherein R_3 represents C_{1-8} alkyl or C_{1-8} haloalkyl and X, Y, R_1 and R_2 are as defined in claim 1, with an oxidizing agent; or
(c) when in a compound of formula I R_3 represents $-NH_2$, reacting a compound of formula IX



IX

wherein X, Y, R_1 and R_2 are as defined in claim 1, with hydroxylamine-O-sulfonic acid; or
(d) when in a compound of formula I R_3 represents $-NR_4R_6$, reacting a compound of formula XI



XI

wherein X, Y, R₁ and R₂ are as defined in claim 1, with an amine of formula HNR₄R₆; or

(e) when in a compound of formula I R₁ represents halogen and X represents N, reacting a compound of formula I wherein R₁ represents hydrogen with a halogenating agent; or

(f) when in a compound of formula I R₁ represents halogen and Y represents N, reacting a compound of formula I wherein R₁ represents hydrogen with a strong base and a halogenating agent; or

(g) converting a compound of formula I into another compound of formula I.

13. (Original) A pharmaceutical composition which comprises an effective amount of a compound of formula I according to claim 1 or a pharmaceutically acceptable salt, solvate or prodrug

thereof in admixture with one or more pharmaceutically acceptable excipients.

14-27. (Cancelled)

28. (Original) A method of treating inflammation, pain or fever in a mammal in need thereof, which comprises administering to said mammal a therapeutically effective amount of a compound of formula I according to claim 1 or a pharmaceutically acceptable salt, solvate or prodrug thereof.

29. (Original) A method in accordance with claim 28, wherein said mammal is a human.

30. (Previously presented) A method for treating prostanoid-induced smooth muscle contraction in a mammal in need thereof, which comprises administering to said mammal a therapeutically effective amount of a compound of formula I according to claim 1 or a pharmaceutically acceptable salt, solvate or prodrug thereof.

31. (Original) A method in accordance with claim 30, wherein said mammal is a human.

32. (Previously presented) A method of treating dysmenorrhea, preterm labor, asthma or bronchitis in a mammal in need thereof, which comprises administering to said mammal a therapeutically effective amount of a compound of formula I according to claim 1 or a pharmaceutically acceptable salt, solvate or prodrug thereof.

33. (Original) A method in accordance with claim 32, wherein said mammal is a human.

34. (Currently amended) A method of treating liver, bladder, pancreas, ovary, prostate, cervix, lung, breast, skin or gastrointestinal ~~and colon~~ cancer in a mammal in need thereof, which comprises administering to said mammal a therapeutically effective amount of a compound of formula I according to claim 1 or a pharmaceutically acceptable salt, solvate or prodrug thereof.

35. (Previously Presented) A method in accordance with claim 34, wherein said mammal is a human.

36. (Original) A method according to claim 34 or 35, wherein said cancer is a gastrointestinal cancer.

37. (Original) A method according to claim 36, wherein said cancer is colon cancer.

38. (Currently amended) A method of treating cerebral ~~infarction,~~ infarction or epilepsy in a mammal in need thereof, which comprises administering to said mammal a therapeutically effective amount of a compound of formula I according to claim 1 or a pharmaceutically acceptable salt, solvate or prodrug thereof.

39. (Original) A method according to claim 38, wherein said mammal is a human.

40. (Currently amended) A method of treating Alzheimer's disease or dementia in a mammal in need thereof, which comprises administering to said mammal a therapeutically effective amount of a compound of formula I, according to claim 1, or a pharmaceutically acceptable salt, solvate or prodrug thereof ~~is Alzheimer's disease or dementia.~~